

**REMARKS****Amendments**

Claims 1-27 have been canceled. Claims 28-31 have been added. The newly added claims do not add or constitute new matter. Support for the newly added claims may be found throughout the specification and originally filed claims (see, for example, page 51, lines 26-31 and page 52, lines 10-25, of the specification and claims 17, 18 and 21).

The foregoing amendments to the claims are made solely to expedite prosecution of the instant application, and are not intended to limit the scope of the invention. Further, the amendments to the claims are made without prejudice to the pending or now canceled claims or to any subject matter pursued in a related application. Applicant reserves the right to prosecute any canceled subject matter at a later time or in a later filed divisional, continuation, or continuation-in-part application.

Upon entry of the amendment, claims 28-31 are pending in the instant application.

**Sequence Compliance**

The Examiner has alleged that the instant application fails to comply with the requirements of 37 C.F.R. § 1.821 through 1.825. In particular, the Examiner has stated that the application fails to comply with the rules because the sequence disclosed in Figure 2A does not have a sequence identifier. Applicant has submitted herewith a replacement Figure 2, which adds a sequence identifier to the sequence disclosed in Figure 2A (SEQ ID NO:1). As the sequence disclosed therein is identical to the sequence disclosed in Figure 1 and set forth as SEQ ID NO:1, no new matter has been added by this amendment. Furthermore, as this sequence was included in the sequence listing previously filed in the instant application, Applicant does not believe a substitute or corrected sequence listing is required. Applicant submits that the instant application is now in sequence compliance.

**Rejections*****Rejection under 35 U.S.C. § 112, first paragraph***

The Examiner has rejected claims 8, 10 and 17-23 under 35 U.S.C. § 112, first paragraph, because these claims allegedly contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which

it is most nearly connected, to make and/or use the invention. Applicant respectfully traverses this rejection.

The Examiner's rejection specifically relates to the state of the art of transgenic knockout technology in relation to the breadth of the claims and disclosure in the instant specification. In one aspect, the rejection relates to the requirement for embryonic stem cells to create a transgenic animal as claimed. In a further aspect, the rejection relates to the limitation of transgenic knockout technology to the mouse system, due to the lack of embryonic stem cells capable of germline transmission of a disruption in other species. In another aspect, the rejection relates to the rejected claims allegedly not requiring germline transmission of the disrupted 5-HT-2B gene sequence. In a final aspect, the rejection relates to the unpredictability of phenotypes in transgenic animals, and the alleged lack of disclosure of a phenotype in the rejected claims.

The Applicant respectfully traverses the enablement rejection. However, Applicant has overcome the rejection by the cancellation of rejected claims 8, 10 and 17-23, and submission of new claims 28-31. Claims 28-31 recite a transgenic mouse embryo comprising a homozygous disruption in the 5-HT-2B gene described in the instant application. These claims recite the use of mouse embryonic stem cells to produce the mouse, as well as a phenotype exhibited by the mouse embryo as a result of disruption of the 5-HT-2B gene distinct from a wild-type mouse embryo. Undue experimentation would not be required for the skilled artisan to make or use the transgenic mouse as presently claimed. As the specification has demonstrated that disruption of the 5-HT-2B gene results in developmental abnormalities such as arrested development, or retarded growth and development, the transgenic mouse embryo, as claimed would be capable of use by the skilled artisan in methods aimed at discovering agents or procedures that would affect or ameliorate the developmental abnormalities or phenotype exhibited by the mouse embryos. Therefore, the Examiner's rejections are not relevant to newly added claims 28-31. The Applicant respectfully requests withdrawal of the rejection.

Applicant submits that new claims 28-31 fully meet the requirements and are patentable under 35 U.S.C. § 112, first paragraph.

It is believed that the claims are currently in condition for allowance, and notice to that effect is respectfully requested. The Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1271 under Order No. R-599.

Respectfully submitted,

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